

## REMARKS

The Examiner has deemed the August 9 reply not fully responsive because Applicant failed to map out the relationship between the new set of claims and the claims as previously filed.

The disclosure was objected to because of typographical errors, however, Applicants have not found any further errors. Applicants have found that this appears to be an error that occurred apparently during the formatting of the WO publication. The application as filed does not contain these errors, and a copy of this clean application was submitted to the USPTO as evidenced by the US publication which also appears not to contain these errors. Applicants respectfully submit that correction is therefore not necessary. If the Examiner disagrees, Applicants will provide a substitute clean specification.

Claims 17-37 were before the Examiner. These claims have been canceled and new claims 38-46 have been submitted. These new claims are based on previous claim 35 in combination with the other previous claims. Applicants respectfully submit that new matter has not been added with these claims.

New claim 36 is directed to making bimodal polyethylene just like claim 46. Claim 38 is supported by original claim for example.

Claims 17-37 were rejected under 37 U.S.C. § 103(a) as being unpatentable over Collina et al. in view of Chang, Smith et al. and Lin et al.

Collina et al. is cited for the general teaching of a two stage polymerization process (polypropylene) wherein “porous polymer beads” generated from first polymerization stage are “impregnated with second catalyst” and used in a second propylene polymerization process. Notwithstanding the relevance of such disclosure, Applicants were not able to confirm any disclosure of porous beads of polymer being impregnated with catalyst. Applicants respectfully request a specific citation of such disclosure.

In any event Collina does not disclose or suggest any catalyst suitable for polyethylene or bimodal polyethylene production, particularly one made per the claimed process, specifically requiring washing of the catalyst after impregnation.

Chang et al. is cited only for its disclosure of supporting catalyst on support using vacuum. Presumably the Examiner proposes that one would be led to use vacuum in combination as now claimed having read Chang et al. and Collina et al. because this would result in less fouling as taught by Chang et al. Chang et al., like Collina et al. is still silent on a number of elements including “obtaining bimodal polyethylene polymer.”

Smith et al. is cited for its disclosure of supporting catalyst under atmospheric pressure.

The Examiner states that “Lin teaches the preparation of polyethylene hollow beads in the presence of a polystyrene supported ion based complex which provide improved morphology (page 1487, left col.).” Applicants disagree.

A careful reading of Lin et al. reveals that the styrene used in catalyst preparation is in fact *liquid* and it is used in a prepolymerization step (p. 1487; 1<sup>st</sup> para. – see line 3 where “Cat-1” is combined with (**5ml**) of styrene...). The product of this is then supported on *silica* (p. 1487; 2<sup>nd</sup> para.). When the resulting supported catalyst is used in a single stage polymerization, the morphology of the polyethylene obtained is described as “a little poor, with particles of varied and ill-defined shapes.” Such “particles of varied and ill-defined shapes” are not likely to be polyethylene hollow (or porous) beads, and such beads are not otherwise disclosed.

Applicants respectfully submit these references, either alone or in combination, fail to provide any reason why a person of ordinary skill would have combined the claimed elements. If the Examiner disagrees, Applicants respectfully request explicit identification of such reasons. Otherwise, Applicants respectfully request withdrawal of the rejections and issuance of a Notice of Allowance.

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Dated 11/13/07

Respectfully submitted,

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